

TECAMID® 66 GF30 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 66 (Polyamide 66)

Colour

grey-white

Density

1.36 g/cm³

Fillers

30% glass fibres

Main features

- very good mechanical strength
- high heat deflection temperature
- high stiffness
- high strength
- excellent wear properties
- high fatigue strength
- resistant to many solvents
- high creep resistance

Target Industries

- power engineering
- gear manufacturing
- automotive industry
- conveyor technology
- mechanical engineering
- construction industry
- others

<i>Mechanical properties</i>	<i>condition</i>	<i>value</i>		<i>test method</i>	<i>comment</i>
Modulus of elasticity (tensile test)	@ 73 °F	800,000	psi	ASTM D 638	
Tensile strength at yield	@ 73 °F	13,500	psi	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	10	%	ASTM D 638	
Flexural strength	@ 73 °F	19,575	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	700,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 10% strain	17,000	psi	ASTM D 695	
Compression strength	@ 73 °F, 1% strain	2,900	psi	ASTM D 695	
Compression modulus	@ 73 °F	380,000	psi	ASTM D 695	
Impact strength (Izod)		1.25	ft-lbs/in	ASTM D 256	
Rockwell hardness	M Scale	88		ASTM D 785	
<i>Thermal properties</i>	<i>condition</i>	<i>value</i>		<i>test method</i>	<i>comment</i>
Melting temperature		499	°F	-	1) (1) publicly sourced data
Service temperature	Intermittent	338	°F	-	2) (2) publicly sourced data
Service temperature	Long Term	230	°F	-	3) (3) publicly sourced data
Thermal expansion (CLTE)		2.7*10 ⁻⁵	in/in/°F	ASTM D 696	4) (4) publicly sourced data
Specific heat		0.3	BTU/lb-F°	-	5) (5) Data obtained from public source
Thermal conductivity		2.71	BTU-in/hr-ft ² -°F	-	6) (6) Data obtained from public source
<i>Electrical properties</i>	<i>condition</i>	<i>value</i>		<i>test method</i>	<i>comment</i>
surface resistivity		1.0*10 ¹⁴	Ω/square	ASTM D 257	1) (1) Data obtained from public source
Volume resistivity		1.0*10 ¹⁴	Ω*cm	-	2) (2) Data from public source
<i>Other properties</i>	<i>condition</i>	<i>value</i>		<i>test method</i>	<i>comment</i>
Moisture absorption	@ saturation, 73 °F	0.30	%	ASTM D 570	
Moisture absorption	@ 24 hrs, 73 °F	0.25	%	ASTM D 570	

→ Resin specification:

ASTM D6779-11 PA0110G30A00000 and ASTM D4066-01a (Reapproved 2008) PA0110G30A00000

Shapes specification: ASTM D5989-11 S-PA0101G3054444420

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